

# Chapter 1: INTRODUCTION

## Mission

The mission of the King County Groundwater Protection Program is to protect the quality and quantity of the groundwater resources in King County through policy and a variety of management and technical activities. King County's Program aims to protect the health and safety of King County citizens who use groundwater for drinking water supplies, and to preserve fish and wildlife habitat by ensuring for future generations the replenishment of streams, lakes and wetlands through groundwater.

This mission is particularly important in King County, where:

- Nearly 30% of the population relies on groundwater as their sole or primary drinking water source.
- Almost all of the nearly 1,800 water systems, and approximately 12,000 private wells, use groundwater as all or part of their supply.
- Under state and federal regulations, many groundwater-supplied water systems have developed and are implementing programs to protect their groundwater sources of supply.
- The adopted countywide Planning Policies for King County require all jurisdictions within the County to protect the quality and quantity of groundwater. Specifically require development of best management practices, mapping of groundwater resources, establishment of wellhead protection areas, and protection of critical groundwater areas.
- All four major watersheds within King County are conducting assessments of factors contributing to the decline of salmon—including flows, levels, water temperature and quality, and water-related habitat—as part of salmon conservation and recovery for the region.
- The County is participating in a Tri-County Endangered Species Act planning process to produce a model program of activities to protect and restore habitats in order to recover salmon, bull trout, and other species of fish that are or may be listed as threatened or endangered under the Endangered Species Act.
- The County is pursuing a comprehensive regional water supply plan that will address domestic water supplies, conservation, and reclaimed water.
- The County is participating in regional water planning forums, including the Central Puget Sound Initiative, one of three statewide priority areas for water resource planning.
- The County is actively pursuing increased use of reclaimed water as an essential component of its Regional Wastewater Services Plan. A portion of that plan includes extensive technical evaluation of the interplay of groundwater and surface water and opportunities to use reclaimed water to improve both water quantity and water quality.

- The County has adopted groundwater management areas and associated groundwater management plans for much of King County, which contain multiple strategies developed by locally based committees for protecting the quality and quantity of groundwater within communities.

## Objectives

In meeting its obligation to ensure that groundwater resources are protected, King County is pursuing a program that does the following:

- Provides stewardship of groundwater in King County, sustains the people and habitats that depend on it, and establishes it as a safe and clean resource.
- Develops technical expertise and comprehensive data that pinpoints trends and provides the basis for strategies to respond groundwater threats.
- Coordinates activities and issues with tribes, purveyors, regional water supply forums, and planning groups, county departments, state and federal agencies and others to ensure information sharing and avoid duplication or conflicting efforts.
- Within available resources and on a priority basis, implements recommended strategies and activities that have been developed within the groundwater management plans. Pursues a comprehensive long-term funding approach for regional groundwater activities.
- Advocates for King County, at state and federal forums, and relevant groups.
- Integrates groundwater activities, programs, and objectives into a comprehensive, countywide water strategy that includes surface and ground water supplies, stormwater, and reclaimed water.
- Includes participation, including financial, by all parties who benefit from King County's program, including water purveyors and other groundwater users.
- Supports the startup and ongoing work of each of the Groundwater Protection Committees in each of the four Groundwater Management Areas.

## History

For many years, groundwater protection and related groundwater management activities have been an important part of King County's public health and environmental stewardship responsibilities. Public Health-Seattle & King County (Public Health) administered programs related to drinking water and on-site septic systems as part of its public health responsibilities. Since its creation, and as part of the Metro merger in 1996, the King County Department of Natural Resources and Parks (DNRP) has been involved in groundwater issues as part of a mandate for resource management and environmental protection. (Note: Prior to January 1, 2002, the agency was the Department of Natural Resources; effective January 1, DNR merged with the King County Park System and took its current name)

Public Health and DNRP worked closely with locally established committees over 10-15 years to develop the Groundwater Management Plans for five Groundwater Management areas (Figure 1-1) in King County. Significant groundwater problems that threatened the resources had been identified in the five areas and led to the creation of the committees to address the problems in each of those distinct geographic areas. Following certification of four of the plans by the Department of Ecology in 2000, the King County Council provided interim funding to DNRP to move forward with implementation of the plans. With this interim funding, the DNRP program has focused on public education and outreach, data collection and management, policy and regulatory development, and coordination between related county efforts affecting groundwater protection. DNRP has also developed and strengthened relationships with state agencies—such as the Departments of Ecology and Health—and federal agencies such as the Environmental Protection Agency (EPA) and the United States Geological Survey (USGS).

DNRP also worked to establish the local groundwater committees that each Groundwater Management Plan proposed to coordinate implementation of each plan. Partly in response to this need, the King County Council created, by ordinance, a Groundwater Protection Program for King County. The ordinance was adopted in October 2001 and went into effect on December 6, 2001. (A more complete description of content of the ordinance is provided in Chapter 2; the full text of the ordinance is in Appendix A.) The Ordinance named DNRP as the lead agency for all groundwater-related work within King County. The ordinance spelled out specific responsibilities for the program, and directed DNRP to coordinate pursuit of the County's groundwater protection objectives with other County departments, such as Public Health, and with other federal and state agencies. The ordinance created Groundwater Protection Committees for each of the four

Groundwater Management Areas with completed Groundwater Management Plans that had been certified by the Department of Ecology. The Council Ordinance directed DNRP to participate in the organization of these committees and provide support to them within available resources.

## **Scope of The Program**

The ordinance lays out a core set of activities related to groundwater protection in King County. To a large extent, they reflect groundwater objectives and activities that have been underway for several years, including:

- Data management, including obtaining available data from other local jurisdictions in King County, federal and state agencies and tribal nations; reviewing and mapping data; maintaining a clearinghouse of data on groundwater in King County; and responding to data.
- Groundwater protection planning, including assisting with updating groundwater management plans; coordinating groundwater protection activities with water purveyors, water users, tribal nations, adjoining counties where appropriate, the Washington state departments of Health, Ecology, Fish and Wildlife, and other appropriate state and federal agencies; and participating in County activities and

forums where groundwater protection may be a significant issue, in areas such as water resource inventory area work and Endangered Species Act work.

- Coordination of technical expertise in groundwater, including but not limited to geology, hydrology; geophysics and geophysical methods; and mapping.
- Monitoring countywide tracking of environmental benchmarks in accordance with King County's countywide planning policies.
- Monitoring and data collection in the Vashon-Maury Island and east King County groundwater management areas from existing sampling sites, and monitoring and data collection pilot projects in incorporated and unincorporated areas of King County.
- Stewardship of groundwater in the unincorporated areas of King County where stewardship services are not provided by special purpose districts, sewer and water utilities and associations and water purveyors.
- Regional education and public involvement in groundwater protection issues.
- Participation in the development of strategies to prevent the contamination of sensitive aquifer areas from spills of hazardous materials.
- Identification and mapping of critical groundwater recharge areas and participation in the protection and development of protection or remediation strategies for these areas.
- Serving as a clearinghouse for groundwater models that address cross-jurisdictional groundwater problems within a groundwater management area or among groundwater management areas.
- Reviewing and recommending health regulations related to groundwater protection;
- Recommending amendments to the countywide planning policies and environmental benchmarks related to groundwater protection.
- Recommending any combination of activities, policies and procedures to public and private entities that have impacts on groundwater or that may be necessary to implement elements of the groundwater protection program.
- Developing comprehensive policies that integrate groundwater protection, surface water, stormwater, wastewater, and reclaimed water and protect critical water recharge areas.

As lead agency, DNRP is responsible for the following:

- Providing support and serving as liaison to the Groundwater Protection Committees, and participating in implementation of the Groundwater Management Plans.
- Developing short- and long-term work plans for the Program.
- In cooperation with local jurisdictions, water purveyors, special purpose districts and other interested parties, developing a long-term funding strategy to meet the needs of the County's program.

- Providing reports and meeting other commitments as provided in the Ordinance.
- Coordinating groundwater activities with state and federal agencies, tribes, local governments, water purveyors and users and participating in such activities as Endangered Species Act studies and plans where groundwater may be an issue.
- Coordinating groundwater activities within King County with Public Health, the Office of Regional Policy and Planning (ORPP) and the Department of Development and Environmental Services (DDES).
- Recommending possible changes in the areas of public health regulation, countywide planning policies, land use practices (e.g., critical recharge area protection) and tracking of groundwater trends in environmental benchmarks.
- Developing comprehensive policies that integrate groundwater protection, surface water, stormwater, wastewater, and reclaimed water.

## **Potential Program Scope**

In 2001, the Groundwater Protection Program had staffing and funding levels that were residual from the “Early Start” program that was authorized by the King County Council in 1999. This level of resources allows for a limited water quality/quantity monitoring and data management program, with some countywide tracking of Growth Management Act Environmental Benchmarks; an education/outreach program that reaches a limited number of schools and other events; participation in the work of the Groundwater Protection Committees and other forums; and some work with other agencies and King County programs on groundwater issues.

In order to fully address groundwater issues within the geographic area of King County, a regional Groundwater Protection Program could ultimately include:

- Activities that directly benefit the groundwater resources under King County’s control or management.
- Regional activities that can be accomplished at a minimal cost or expanded to the extent there is regional participation in funding.
- Stewardship of groundwater in the rural areas, based on local input, and in the remainder of King County based on agreements with local jurisdictions.
- A basic level of the highest priority strategies from the Groundwater Management Plans, ultimately coupled with fully funded activities agreed to by all necessary and interested groups.

As directed by the County Council, in 2002, DNRP will be pursuing with its partners the desired scope of a regional program, and options to fully fund it.